March 2016

Brownfield Cleanup Program
Remedial Investigation Work Plan

Former Plesser Property Site
Town of New Paltz
Ulster County, New York

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL
CONSERVATION, DIVISION OF ENVIRONMENTAL REMEDIATION
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"I, James D. McIver, Jr., certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this work plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with DER Technical Guidance for Site Investigation and Remediation (DER-10)."

DRAFT REMEDIAL INVESTIGATION WORK PLAN
FORMER PLESSER PROPERTY SITE
TOWN OF NEW PALTZ
ULSTER COUNTY, NEW YORK

TABLE OF CONTENTS

PAGE

DRAFT REMEDIAL INVESTIGATION WORK PLAN
FORMER PLESSERPROPERTY SITE
TOWN OF NEW PALTZ
ULSTER COUNTY, NEW YORK

TABLE OF CONTENTS

FIGURES

APPENDICES

ATTACHMENTS

1.0 INTRODUCTION

1.1 Introduction

This document presents a Remedial Investigation Work Plan (RIWP) developed to assess environmental conditions at the Former Plesser Property Site (Site) in the Town of New Paltz, New York (Figure 1, Site Location Map). The Site submitted an application for entry into the Brownfield Cleanup Program dated January 26, 2015 and has been accepted (BCP No. C356053) as of February 11, 2015. Future use is likely to involve the construction of a resort facility catering to active families with young children and those persons seeking recreational activities. The project, as proposed, may include a four to five story hotel with between 250 and 275 rooms, a 70,000 square foot indoor water park, ancillary outdoor water park feature (seasonal operation), a 10,000 square foot conference and banquet center, indoor tennis courts, outdoor tennis courts, outdoor zip lines, rope courses, an outdoor climbing wall and an indoor spa. The project will also include several restaurants, a signature café and "faster" food options at the outdoor water park area.

The Volunteer (Mega Funworks, Inc.) does not own the property, but the property has been purchased by the Wildberry Lodge, LLC as of July 29th, 2015. The Wildberry Lodge, LLC is, along with other family recreational and hospitality venues owned and operated by Steven and Shelley Turk.

The purpose of this RIWP is to establish procedures for the remedial investigation. The proposed investigation incorporates results of previous investigations performed on the Former Plesser Property; however, the investigations on the Site were not performed to the standards outlined in DER-10; Technical Guidance for Site Investigations and Remediation. This RIWP will be performed in accordance with DER-10 and is intended to fill in the existing data gaps, define the nature and extent of potential contaminant sources. Further, there will be an evaluation of the fate and transport mechanisms applied to any identified contaminants so that an appropriate remedy can be incorporated into the development plans for the Site.

The proposed investigation includes the collection and analysis of surface soil samples, sediment and surface water samples, test pits for the collection of subsurface soil samples, and the advancement of soil borings for conversion to monitoring wells.

This RIWP outlines a systematic investigative approach specific to the Site considering its history, geology and hydrogeology, known or suspected contaminants, and surrounding land use. The target goal of this RIWP is to support the development of potential remedial alternatives, as necessary, which will allow the Volunteer to develop a Remedial Work Plan for NYSDEC review.

2.0 SITE DESCRIPTION & HISTORY

2.1 Site Description

The Site is an irregular-shaped parcel of undeveloped land comprised of two tax parcels in the Town of New Paltz, Ulster County, New York (Section 86.12, Block 5, Lots 13.310 and 13.320). The combined parcels are approximately 57.3 acres in size. The parcels that comprise the Site lack a physical address. The location of the Site is shown on Figure 1 – Site Location Map and an ortho-photograph depicting the Site boundaries and the surrounding areas is included as Figure 2 – Ortho-photographic Site Location Map. The tax lot boundaries of the Site and surrounding parcels are depicted on Figure 3 – Sketch Map.

The Site is currently vacant. Areas of the Site contain grassy fields and wooded lands, but have historically been developed. Remnants of foundations, concrete paved areas, an asphalt driveway, power lines and several trails exist. A small portion of the northernmost tax lot is landscaped. This portion of the Site is in close proximity to Paradies Lane. The central portion of the Site contains grassy fields. The southernmost portion of the Site is wooded with delineated wetlands. The remnant foundations, concrete paved areas, and an asphalt driveway are located in the northwestern section the Site. Several trails are present on western and central sections of the Site.

The northern section of the Site contains approximately 1,000 feet of frontage along the southern side of Paradies Lane and NYS Route 299 and 450 feet of frontage along the western side of South Ohioville Road.

2.2 Adjacent Land Use

The adjacent and surrounding land use is a mix of commercial and residential property. NYS Thruway Exit 18 lies to the west of property. Paradies Lane borders the northern and western corner of the Site; NYS State Route 299 borders the Site to the north; South Ohioville Road lies to the east of the Site and there are a number of commercial and residential properties along South Ohioville and vacant land lies to the south.

2.3 Site History

The Site has historically operated as a commercial orchard. Although there are no existing above ground structures remaining, there are underground and at grade structures that were part of the operation and will require action as the project moves forward.

2.4 Site Utilities

The Site has its own potable water supply and subsurface sanitary sewer systems associated with the old house that has been demolished. These systems are no longer in use and would be abandoned during future construction activity. Electricity and natural gas are available and would be provided by Central Hudson Gas & Electric Corporation. Historically, the house used fuel oil for heating purposes

There are no public water or sewer services available from the municipality to this Site; however, existing water supply wells (private) have been documented on Site (Attachment A). There is the potential to use the available water sources as a potable water source for this project. Currently, the water supply is under evaluation for use as a temporary water supply source when the Village of New Paltz water connection to the New York City aqueduct system is temporarily disconnected for maintenance and repairs.

2.5 Site Drainage Features

The Site is relatively flat but generally slopes gently to the north and east. There are depressions in the central portions of the Site that storm water generated on the Site during precipitation events is expected to run off along the surface to wetland areas located in south central and western portions of the Site.

2.6 Topographic Description and Nearby Surface Water Bodies

The Site topography is relatively flat, but slopes slightly to the north and east. A review of the United States Geologic Survey (USGS) Topographic Map (Clintondale, New York Quadrangles – Figure 1) indicates that the surface elevations on the Site range from 360

feet above mean sea level (msl) near the northeastern section of the Site to 380 feet above msl on the western section of the Site.

No major water bodies are present on-Site. Wetlands are identified in the wooded areas on the southern section of the Site. The nearest off-Site water body is the Swarte Kill Creek, which is located approximately 4,000 feet east of the Site.

2.7 Site Geology

A review of the Surficial Geologic Map of New York (Lower Hudson Sheet, 1989) identifies two surficial soil types in the area of the Site. They are: 1) glacial till (a loamy mixture of clay, silt-clay, and boulder clay) and 2) glacial outwash sand and gravel deposits. These findings are confirmed by a review of the United States Department of Agriculture (USDA) Soil Conservation Service's Soil Survey of Ulster County, New York maps soils. Six soil types were identified by the USDA on the Site, with primary origins from either glacial till of fluvial glacial deposits. The soils are described as Chenango gravelly silt loam, Mardin gravelly silt loam (MdB), Borrow Pit (BP) deposits with no specific description of soils (often an indicator of sand and gravel deposits), Volusia gravelly silt loam (VoA) (often associated with wet soils), Canandaigua silt loam (Cd), wetland and muck soils, and Bath and Mardin (BrC) Gravel/silt loam deposits.

Bedrock in the area of the Site is mapped on the Geologic Map of New York (Lower Hudson Sheet, 1970) as Ordovician-aged rocks of the Normanskill formation (shale, argillite, and siltstone).

Groundwater flow is best determined using site-specific well data and may be affected by surface topography, hydrology, hydrogeology, and characteristics of the soil and nearby wells. No site-specific well data or hydrology information is known to exist for the Site. In the absence of site-specific data, other sources of information are typically used including surface topographic information, hydrogeologic information collected from nearby properties, etc. Based on a review of available information, including area topography, regional groundwater flow is expected to be east-northeast; however, the Site sits on a relatively high topographic area so regional flow in the bedrock aquifer may be to the Wallkill River located to the west of the property. On-site groundwater flow would be influenced by site-specific geologic conditions and surface water

features. Shallow groundwater flow is likely to be towards the wetland bodies located adjacent to the Site.

2.8 Environmental Site History

2.8.1 Previous Property Use

The Site has historically been used for farming purposes; mainly as an orchard.

2.8.2 Historical Chemical Use

Limited laboratory analytical results from previous environmental investigations (Section 2.9) show elevated levels of metals in the central portions the Site. These metals are mainly arsenic and lead, typical of lead arsenate pesticides that were commonly used in commercial orchard operations up to the 1950's and 60's.

There is also some evidence of semi-volatile organic compounds associated with an oil spill (NYSDEC Spill No. 14-018290) near where the old barn was located.

2.8.3 Environmental Orders, Decrees and Violations Associated with the Site

There are no environmental orders or decrees associated with the Site. There is an open spill number reported for the Site (DEC Spill No. 14-018290).

2.9 Previous Environmental Investigations

Several environmental assessments were conducted at the property. The Site's environmental history is presented in the following reports. These reports are included in Exhibit A.

- Phase I Environmental Site Assessment, Plesser Property, 57 Acres of Undeveloped Land, Town of New Paltz, Ulster County, New York, April 30, 2014, prepared by The Chazen Companies, 21 Fox Street, Poughkeepsie, New York.

- PHASE II ENVIRONMENTAL SITE ASSESSMENT, Plesser Property, Paradies Lane, New Paltz, Ulster County, New York, NYSDEC Spill No. 14-01829, dated

June 18, 2014, prepared by DT CONSULTING SERVICES, INC., 1291 Old Post Road, Ulster Park, New York.

The following summarizes the Site's environmental history.

2014 Chazen Phase I ESA

The Chazen report identified the following recognized environmental conditions:

- Historical uses of the central and northeastern sections of the Site included an apple orchard. The owner reported that pesticides exist in shallow soils in the area of the former orchard; however, supporting documentation and concentration information was not provided. It is also not known if pesticides were applied according to their labeled directions. Given the reported presence of pesticides in soil, but the limited associated information, this is considered a Significant Data Gap (SDG).

- Five structures (i.e., one barn, one garage and three unidentified structures), constructed circa 1949, were previously located on the Site. The three unidentified structures were demolished circa 1978-1994, while the remaining barn and garage were demolished in 2003. Records searched could not confirm if any of the five structures contained heating systems and the usage of the three unidentified structures. This lack of information represents an SDG.

- A waste pile was noted in the southwestern section of the Site (area of one demolished unidentified structure) and included empty containers of raw product (e.g., approximately twenty 1-gallon buckets for oil/grease, one 5-gallon fuel container, two 15-gallon drums with unknown contents). No staining and/or odors were noted on surfaces underneath these containers; however, it is unknown if containers were empty when placed in this area and what were the contents of these containers. Therefore, this waste storage is considered an SDG.

- A Shell gasoline station is located adjacent to the Site, is associated with one open NYSDEC spill, and identified as a Petroleum Bulk Storage (PBS) facility. Four underground storage tanks (USTs) exist on-site: 8,000-gallon gasoline, 6,000-gallon gasoline, 4,000-gallon diesel, and 1,500-gallon petroleum. One spill incident (No. 9814530) was reported for discovery of soil contamination during

tank removal and has not been granted closure by the NYSDEC. Presumed groundwater flow direction in this area is away from the Site (southeast); however, this could not be confirmed so the Spill represents an SDG for the Site. In addition, this Spill incident indicates that potential vapor intrusion issue cannot be ruled out for the Site but it should be noted that the NYSDOH does not currently regulate petroleum compounds when considering vapor intrusion concerns.

- A rusted empty and unlabeled 55-gallon container was noted in front of the auto-repair garage property encroachment but still on-site. No staining and/or leakage were noted in the area; however, the historical drum contents are unknown and therefore considered an SDG.

- A small clearing is noted in the extreme southwest corner of the Site in the 1994 aerial photograph but appears subsequently wooded. The reason for a temporary clearing is unknown; however, there was no evidence of material storage or stressed vegetation; therefore it is not a REC.

- An adjacent auto repair facility's overflow parking area encroaches onto the central eastern section of the Site. A close-up inspection of the encroachment could not be conducted as it was incorporated in the neighboring property. This is considered an SDG, although, evidence of releases was not observed in this area.

2014 DTCS Phase II ESA Findings

Based on the results of the Phase I ESA, a Phase II ESA was performed. A total of forty-two soil borings were advanced on the Plesser Property, Paradies Lane, New Paltz, New York property.

- Laboratory data for soil samples was obtained from the UST area, located within the northeastern portion of the Site (SB-7) revealed low level concentrations for several targeted VOCs at depths between 8 and 12 feet bgs.

- Surficial soil samples were obtained from within the historical orchard areas (central and north–northeastern portions of the property). These samples indicated elevated concentrations of arsenic and lead, exceeding unrestricted and

restricted residential NYSDEC Subpart 375-6: Remedial Program Soil Cleanup Objectives, December 2006.

- DTCS concluded subsurface soil impacts exceeding soil guidance standards were encountered within eleven soil borings (SB-19, 25, 30 31, 32 - 34, 36, 39 and SB-42) in that portion of the property historically utilized as an orchard. The two compounds of concern within these samples are arsenic and lead.

Copies of pertinent reports from previous investigations performed on and near the Site can be found in electronic format in Attachment B.

3.0 OBJECTIVES, SCOPE & RATIONALE

3.1 Objectives

The objective of this RIWP is to complete an appropriate level of investigation to support the preparation of a Remedial Investigation report that presents the nature and extent of contamination at the Site in surface soil, subsurface soil, surface water, sediments and groundwater. The intent is to obtain sufficient information to develop a suitable remedy, so as to foster industrial redevelopment of the property.

Historic use of pesticides has resulted in documented impacts to shallow soils. It is possible that surface water run-off has impacted adjacent wetlands. Shallow groundwater may be impacted; however, available groundwater sampling results from a pumping test performed on an on-Site water supply well met the applicable groundwater standards promulgated in NYSDEC TOGS 1.1.1.

Groundwater is likely to be present in shallow unconsolidated sediments and the bedrock. The nature of the soils, low to moderate grades, and the likely presence of shallow bedrock limited the potential for shallow groundwater accumulation. If present, it is likely to be perched above the less permeable glacial till and bedrock surface. Drainage is likely to be towards the wetland area on the south central and western portions of the Site; however, the Swarte Kill is likely the discharge point for shallow groundwater in the vicinity of the Site.

The water supply report for the wells installed on the Plesser Property indicated there is no confirmable connection between the upper unconsolidated aquifer and the bedrock aquifer.

Potential remedial actions based upon the investigation will be developed and presented in an Alternatives Analysis Report (AAR). The proposed investigation approach is outlined herein.

3.2 Scope of RI

The scope of work was developed based on previous investigations performed on and around the Site.

The potential chemical parameters of concern were selected based on Site history as well as the results from previous sampling efforts at the Site. Previous analyses detected heavy metals and semi-volatile organic compounds. The region surrounding the property is provided with water from the local aquifer so a well survey is proposed. We will confirm the presence of nearby potable water supply wells.

The type and analysis for all samples to be collected for laboratory analysis during the RI are summarized in Table 1: Analytical Sampling Program, which is presented at the end of this section.

The scope of work will include the following:

Surface Soil Sampling

- Surface soil samples will be collected within the Site as depicted on the Proposed Sampling Locations Plan in Figure 4. The surface sampling activity will proceed simultaneously with the test pitting activities as several of the surface soil sampling locations coincide with the proposed test pit locations. Surface soil samples will be collected prior to advancement of the test pits. Samples may be composited, as warranted.

  Analysis will be for the constituents listed in 6 NYCRR Part 375-6.8 to assess potential exposure pathways to Site contaminants of concern. Every twentieth sample a field duplicate and QC sample will be collected. Sampling locations may be altered in the field based on the physical limitations and observations.

  It is estimated that approximately forty three (43) to fifty (50) surface soil samples will be collected and submitted to the laboratory for analysis. No reduction in sampling frequency will occur without contacting the NYSDEC project manager, in advance, for concurrence.

  Selection of samples for laboratory analysis may be based on subjective evidence of impacts (e.g., PID headspace analysis, presence of visible contamination or odors), and the type of surface debris in the area from where the samples are collected

The surface soil samples will be collected between 0 to 2-inches below the ground surface vegetative root zone. The surface soil samples will be analyzed for the Target Compound List (TCL) of volatile and semi-volatile organic compounds, PCB and Pesticides and Target Analyte List (TAL) metals including cyanide. This list may be modified to focus on metals and pesticides based on historic sampling results. The full suite of analyses will be performed on the outer portions of the Site where no previous sampling has occurred. In areas where extensive testing has already occurred, analyses may be focused on metals and pesticides.

Subsurface Soil Sampling

- Between fifteen (15) and twenty (20) test pits are proposed for the Site, with their approximate locations depicted on Figure 4. The test pit investigation is intended to be flexible and may be modified based on observations and the results of previous the results. Test pits will be located along the established grid system (approximate 200 feet centers) depicted in Figure 4, starting at the perimeter and working inward. Removal of large trees during the investigation is not planned. Small trees and brush shall be moved or removed to facilitate test pitting along the proposed grid lines. The grid may be modified to preserve the large trees for the time being.

- It is planned to excavate each test pit to native soils or bedrock, or the maximum reach of the excavator? The depth of each test pit may vary and each test pit will be approximately twenty (20) to thirty (30) feet long. One sample will be collected from each test pit location for laboratory analysis. The sample interval selected for laboratory analysis will be based on subjective field screening result. Soil samples will be obtained from every test pit; however, it is possible that the soil sample from each test pit may not be forwarded to the laboratory for analysis. If the material in test pits appears based on field screening to be similar in nature to material previously sampled, the number of laboratory analyses may be reduced up to, but not exceeding 50% of that originally proposed. Photo documentation shall be taken of all test pits, particularly those not sampled for laboratory analysis, in order to document that they are similar and therefore not being analyzed. All test pits will be located initially using a Global Positioning

System (GPS) unit so that the test pit can be re-excavated, if field conditions or laboratory analysis of nearby soil samples indicate that a sample was warranted. Some soil samples will be analyzed for VOCs (discrete only, if evidence of impacts are observed), SVOCs, and Metals consistent with the contaminants identified during previous investigations. As per the requirements for sampling identified in DER-10, samples will not be composited unless field conditions warranted. Discrete sampling is proposed for all test pit locations. At least ten percent (10%) of all soil samples shall also be run for PCBs.

- The primary focus of the subsurface soil sampling will be on the shallow soil since future workers at the Site are more likely to come in contact with these soils. . The sample may be collected from the upper one (1) to two (2) feet of soil if there is a likelihood that the soil will remain in place. If warranted, a sample may be obtained from the base of the test pit; however, if subjective evidence of contamination is observed (e.g., oily liquid, strongly odiferous soils, chemical drums, etc), a sample will be obtained from the suspected depth interval.

- If other potentially hazardous material is encountered in the test pits, samples will be obtained for waste characterization purposes. DER-10 3.2(d) prohibits compositing of any samples analyzed for VOCs. Any sample which is to be analyzed for VOCs shall be a discrete sample. VOC analyses (and all Part 375 SCO constituents) are required for BCP Sites. Composites may be proposed to the Department at some percentage of total samples appearing similar in nature if field screening indicates no detectable presence of volatile organic or semi-volatile organic compounds.

- Large trees will be preserved to the extent possible, so the test pit locations (and soil boring locations) may require modification at the time of time of the work.

<u>Groundwater Sampling</u>

- The tentative soil boring/monitoring well locations are shown on Figure 4; however, the actual boring locations may be adjusted depending on what is encountered during the test pit investigation. Four (4) upgradient wells and six (6) downgradient wells are planned. The borings will be advanced to the top of bedrock or into groundwater, whichever is encountered first. The

borings will be completed utilizing conventional hollow stem auger drilling and split spoon sampling techniques.

The groundwater samples from the monitoring wells will be analyzed for the full TCL/TAL list of parameters.

Surface Water and Sediment Sampling

- Three (3) surface water and three (3) sediment samples will be collected from the Site from the general locations depicted in Figure 4. The samples will be analyzed for the full TCL/TAL groups of compounds and analytes.

Other Investigative Tasks

- A Fish and Wildlife Impact Analysis (FWIA) will be completed as part of this investigation. The FWIA will focus on any potential impacts to the wetlands. Available DEC reports indicate that there are not likely to be other sensitive environmental receptors or endangered species present. A description of the potential receptors versus contaminant pathways will be provided to evaluate potential impacts to fish or wildlife resources present at the Site. If significant fish and wildlife resources are present that are likely to be affected by Site-related contaminants, Step I as outlined in the FWIA manual will be considered; the nature and scope of the assessment to be conducted will be selected in coordination with the NYSDEC.

- A qualitative human health exposure assessment of the Site will be completed in general accordance with NYSDOH guidance. The assessment will consist of characterizing the exposure setting (including the physical environment and potentially exposed human populations), identifying exposure pathways, and evaluating contaminant fate and transport.

- Quality Assurance/Quality Control (QA/QC) samples at a ratio of 1 set of QA/QC samples per 20 media samples will be collected and analyzed. The QA/QC samples will include a blind duplicate sample, a MS/MSD sample, equipment blank and a trip blank.

- A Data Usability Summary Report (DUSR) of the analytical data developed during this investigation will be prepared to confirm that it is of adequate quality for subsequent decision making purposes. The DUSR will be completed by an independent data validator.

- All exploratory locations (i.e. surface soil, surface water and sediment samples, test pits, test trenches, test borings, monitoring wells etc.) and other pertinent surface features will surveyed by a NYS Licensed Land Surveyor.

The sampling locations along with the proposed laboratory analyses are presented in the following Table 1.

TABLE 1: Proposed Sampling Locations and Analyses

		Proposed Analysis			
Media	**Depth Interval**	**Full TCL/TAL Parameters**	**TCL PCBs Pesticides**	**Sampling Method**	**Rationale**
Surface Soil	0-2"	X		Decontaminated hand spade, trowel and/or new clean nitrile gloves	To determine the quality of surface soils at the Site.
Subsurface Soil (Test Pits/Trenches)	To Be Determined (TBD)	X	X	Obtain samples from decontaminated excavator bucket utilizing new clean nitrile gloves	To evaluate the extent of buried ash and to gain a better understanding of the Site's subsurface conditions and environmental quality.
Subsurface Soil (Test Borings)	TBD	X	X	No samples are proposed other than geotechnical evaluations for construction purposes	To gain a better understanding of the Site's subsurface conditions and environmental quality.
Surface Water	Water Surface	X		Disposable bailer utilizing new, clean nitrile gloves	To evaluate the environmental quality of surface water in the wet area.
Sediment	TBD	X		Decontaminated hand auger and/or new clean nitrile gloves.	To evaluate the environmental quality of sediment in the wet area.
Groundwater (Monitoring Wells)	TBD	X		Employ low-flow sampling techniques with peristaltic pump and new clean tubing and nitrile gloves	To develop a shallow groundwater contour map and to evaluate the environmental quality of the Site's groundwater.

Quality Assurance/Quality Control (QA/QC) samples will be prepared for each media type at a ratio of one (1) set of QA/QC samples per each 10 to 20 media samples. The QA/QC samples will consist of a duplicate (replicate) sample, equipment (field) blank sample, matrix spike (MS) sample and matrix spike duplicate (MSD) sample.

3.3 Rationale

The Site is currently vacant, and has historically been used as an orchard.

Results of past environmental investigations have shown elevated levels of metals and SVOCs in shallow soils.

Based on the readily available information and C.T. Male's conceptual model of Site conditions, the following rationale is presented:

- Previous sampling indicates that surface and subsurface soils are impacted by historic Site activity. There are potential exposure pathways, especially if the Site is redeveloped. Identification of those exposure pathways and the development of mitigation measures to address the exposure routes is the desired outcome. The proposed surface soil sampling locations are depicted on Figure 4.

  The proposed surface sampling locations are positioned to provide reasonable coverage. Surface samples will be obtained from both future developed and undeveloped areas. The exact number of samples will be established based on field observations. It is anticipated that approximately 45 to 50 surface samples will be collected from the Site.

  Surface sampling locations may be altered in the field based on physical observations and the historic sampling results. In areas where the environmental quality of surface soils are questionable (i.e., the former orchard area) more samples may be obtained; however, the analysis will focus on metals. Submission of samples for laboratory analysis will be based on subjective evidence of impacts (elevated PID headspace analysis and the presence of noticeable odors or visible contamination), and the environmental quality of the area from where the samples are collected.

- The test pits will be completed to collect subsurface soil samples, to evaluate potential on-Site and off-Site impacts associated with historic pesticide use, and to develop a model of subsurface conditions that can be used for future development purposes. The test pits will help define the soil types, depth to

groundwater, etc. Sampling during this activity will confirm the nature and extent of the metal and pesticide distribution.

- Collection and laboratory analysis of surface water and sediment samples from the wet area will aid in determining if impacts are present in this media.
- The monitoring wells will allow a better understanding of the Site's subsurface groundwater conditions, will permit the development of a groundwater contour map, and will evaluate the environmental quality of the Site's groundwater.

4.0 SUPPLEMENTAL PLANS

4.1 Field Sampling Plan

The field activities for this project will include collection and laboratory analysis of surface soil, surface water, sediment and subsurface soil samples, and collection and laboratory analysis of groundwater samples from monitoring wells. The procedures relative to implementation of these field activities are presented in the Field Sampling Plan (FSP) in Appendix A, which also conforms to the Quality Assurance/Quality Control Plan, presented in Appendix B. The FSP describes in detail the various methods and techniques to be followed during the completion of the soil and groundwater sampling activities, instrument operation and calibration, and chain of custody procedures.

4.2 Quality Assurance/ Quality Control Plan

The Quality Assurance Project Plan (QAPP) describes the quality assurance and quality control procedures to be followed from the time media samples are collected to the time they are analyzed by the environmental analytical laboratory and evaluated by a third party according to the NYSDEC DUSR guidelines. The QAPP is presented in Appendix B of this RIWP.

The QAPP will be followed by field personnel during the Site investigation activities and media sampling events. It will also be used by the project management team and Quality Assurance Officer to assure the data collected and generated is representative and accurate. The laboratory results will be reported with NYSDEC ASP Category B deliverables, which will be subjected to NYSDEC's Data Usability Summary Report guidelines to determine if the data is valid and usable.

4.3 Health and Safety Plan

A Site-specific Health and Safety Plan (HASP), which includes a Community Air Monitoring Plan (CAMP) will be prepared for this project to address Site worker health and safety issues. The HASP is presented in Appendix C of this RIWP. Although the

plan addresses all of the planned Site activities, subcontractors will be required to develop their own HASP for work they will perform, as well.

4.4 Citizen Participation (CP) Plan

A project-specific Citizen Participation Plan (CP Plan) has been developed for this project in general accordance with DER 10 and has been submitted to the DEC under separate cover. It has been reviewed and approved by the Department and placed in the document repository as required. The objective of the plan is to disseminate information to the public regarding the RI and other activities at the Site and to involve the public in the decision making process. This is accomplished by keeping the public informed of the investigation through direct mailings, public notice in local newspapers and other publications, and by having project documents available for review at public accessible repository locations. Although the CP Plan is a standalone document available for review in the document repositories, it also should be considered an integral part of the RIWP.

5.0 REPORTING AND SCHEDULE

5.1 Reporting

Upon completion of field activities and receipt and independent validation of the analytical laboratory data, a Draft RI Report will be prepared and submitted to NYSDEC. The RI Report will summarize and discuss the investigations completed as well as any non-conformance to the approved work plan. The report will present the investigations at the Site, analytical results of samples collected and analyzed, interpretations of the data, overall conclusions regarding residual Site contaminants, and recommendations for further investigative work and/or Interim Remedial Measures (IRMs), if any. Upon review and acceptance by NYSDEC, the final approved RI Report will be submitted in hard copy and/or electronic format, as requested by the NYSDEC.

5.2 Schedule

It is currently planned to initiate field work in late November or early December 2015. It is anticipated that the field investigation work will be completed within three weeks thereafter. The Draft RI Report would then be submitted on or about January 2016.

5.3 Development and Analysis of Remedial Alternatives

The development and analysis of remedial alternatives, if necessary, will be dependent upon analytical data obtained during the Remedial Investigation.

At a minimum, the Alternatives Analysis Report (AAR) will evaluate no action relative to the documented conditions disclosed through the investigation, and an action that would reduce/remove all documented media impacts to levels below applicable standards, criteria and guidance values (SCGs).

Once developed, a detailed evaluation will be conducted on the alternatives pursuant to factors identified in 6 NYCRR 375-1. These criteria include:

1. Overall protection of public health and the environmental;

2. Compliance with Standards, Criteria, and Guidance Values (SCGs);
3. Short-term effectiveness;
4. Long-term effectiveness;
5. Reduction of toxicity, mobility, and volume;
6. Implementability;
7. Land Use;
8. Cost; and
9. Community acceptance.

The first eight (8) of the preceding nine (9) criteria form the basic components of the detailed analysis of each alternative, whereby each criterion is compared to the others to determine the most cost effective, protective remedy. The Department will use criterion #9 in their evaluation, once the 45-day public comment period has ended.

The finalized AAR will be prepared under the guidance of a currently registered New York State Licensed Professional Engineer.

6.0 SUBMITTALS

Written communications will be transmitted by United States Postal Service, private courier, or hand delivered to the following individuals. Final documents, as they become available, will also be submitted to the following individuals:

- Douglas MacNeal
  DEC Project Manager
  NYSDEC Central Office
  Division of Environmental Remediation
  625 Broadway, 11th Floor
  Albany, NY 12233-7014
  Phone: 518.402.9662

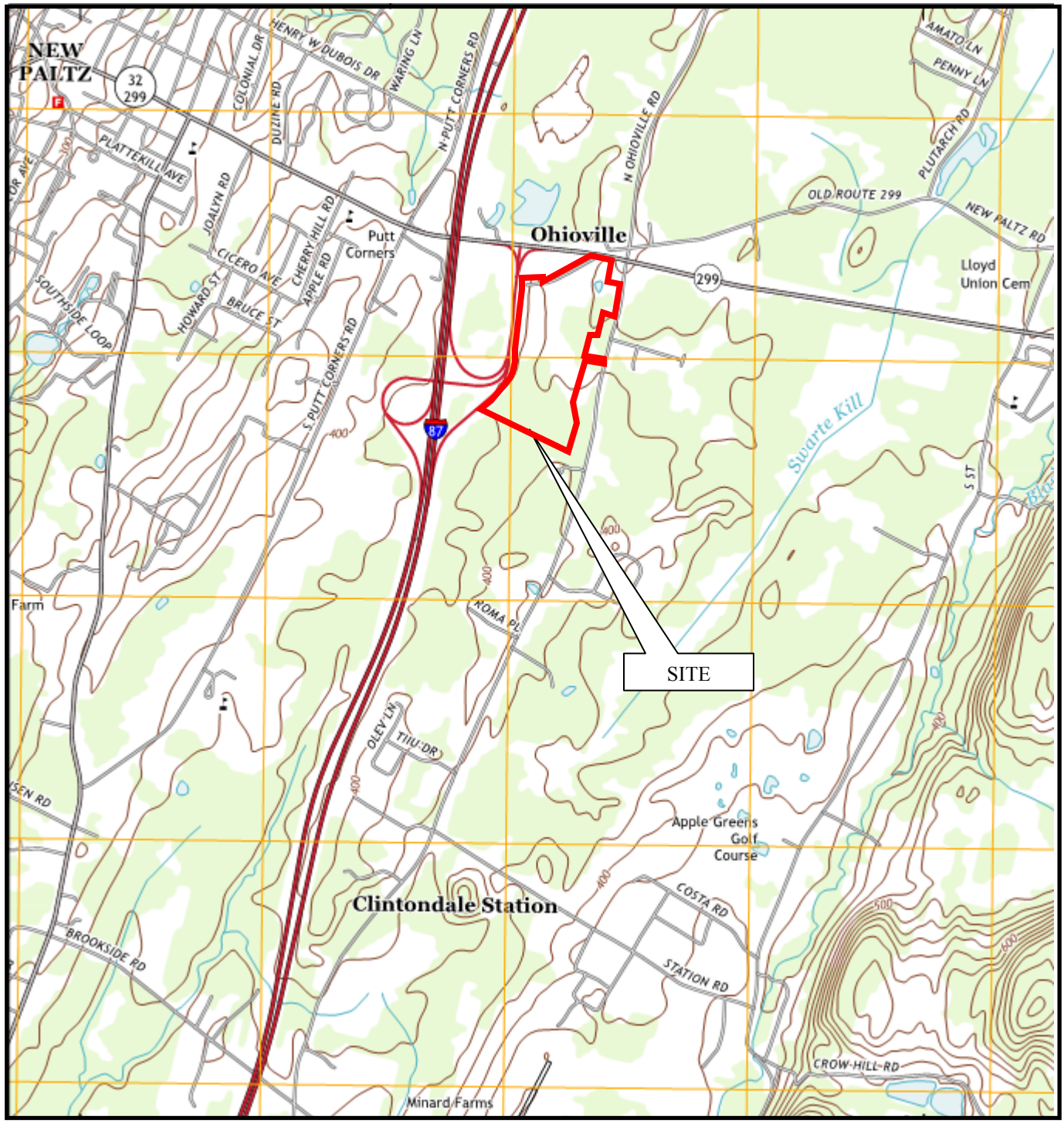
- Public Health Specialist
  Bureau of Environmental Exposure Investigation
  New York State Department of Health
  Empire State Plaza, Corning Tower, Room 1787
  Albany, New York 12237

The DEC shall review submittals as required.

FIGURES

FIGURE 1

SITE LOCATION MAP



MAP REFERENCE
United States Geological Survey
7.5 Minute Series Topographic Map
Quadrangle: Clintondale, NY
Date: 2013

N

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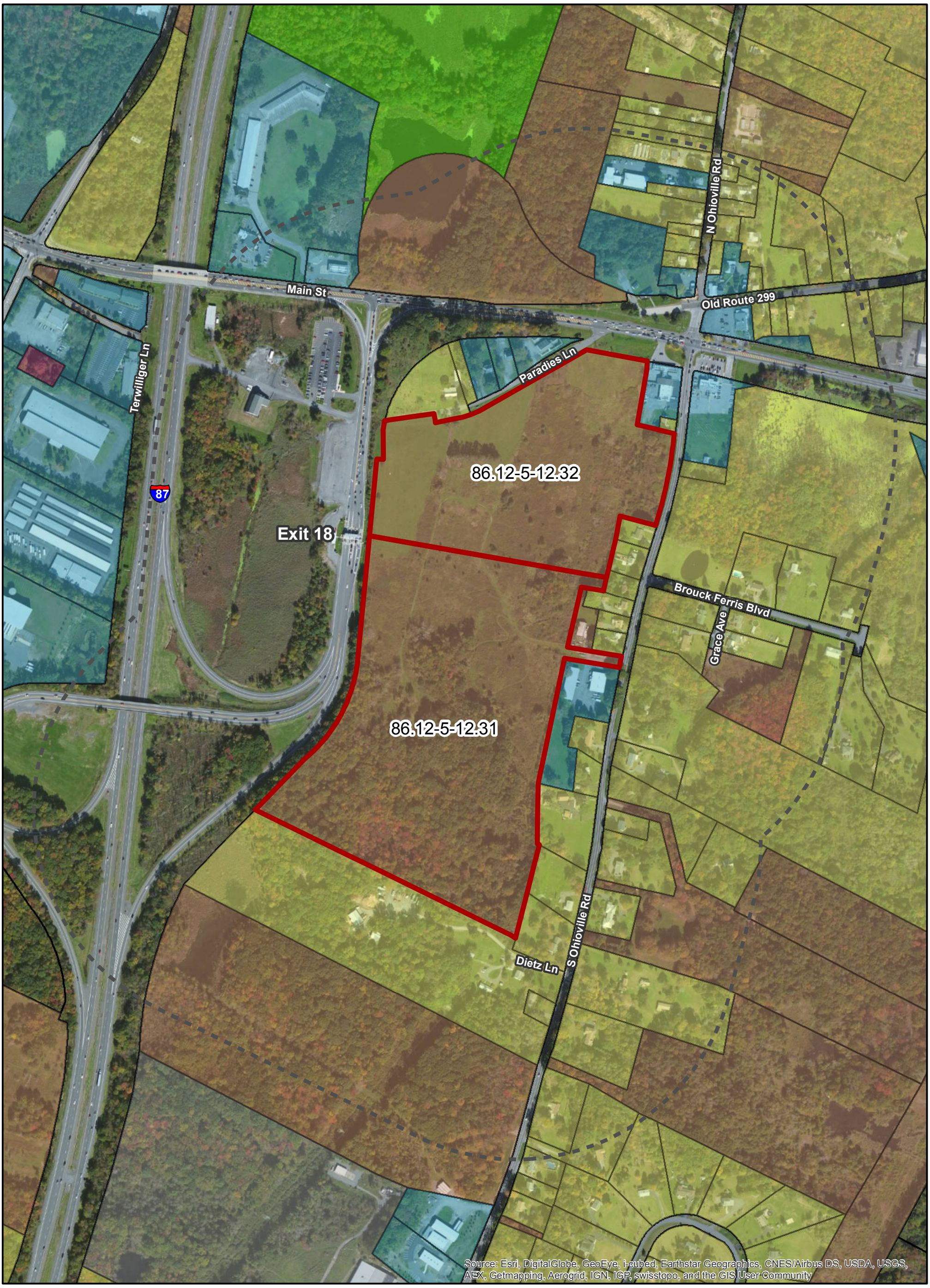
50 CENTURY HILL DRIVE
LATHAM, NY 12110

FIGURE 1 - SITE LOCATION MAP

TOWN OF NEW PALTZ	ULSTER COUNTY, NY
SCALE: 1:2,000±	The locations and features depicted on this map are approximate and do not represent an actual survey.
DRAFTER: ASG	
PROJECT No: 15.5056	

FIGURE 2

SITE FEATURES MAP



N
W
E
S

Legend

- Proposed Site
- Agricultural
- Residential
- Vacant Land
- Commercial
- Recreation & Entertainment
- Community Serves
- Industrial
- Public Services
- 1000' Perimeter of Site
- Tax Parcels

0 200 400 Feet

Project Number: 15.5056
Data Source: NYSGIS Clearinghouse, World Imagery, Ulster County RPS
Projection: NY State Plane East NAD 83 (ft.)
Date: February 2, 2015
File: Fig2_Imagery.mxd
GIS: CHay

Figure 2 - Orthoimagery of the Proposed BCP Site

Town of New Paltz **Ulster County, New York**

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50 CENTURY HILL DRIVE, LATHAM, NEW YORK 12110
(518) 786-7400 * FAX (518) 786-7299 * WWW.CTMALE.COM
FOUNDED IN 1910

FIGURE 3

TAX MAPS

TAX MAP ADJOINER INFORMATION	WILDBERRY LODGE PARADIES LANE TOWN OF NEW PALTZ ULSTER COUNTY, NEW YORK	DATE: 01/30/15 SCALE: 1" = 400'	JOB # 1016.01 SHEET # F-1	ENGINEERING & SURVEYING PROPERTIES Achieving Successful Results with Innovative Designs

71 CLINTON STREET
MONTGOMERY, NY 12549
Ph: (845) 457-7727
Fx: (845) 457-1899

Drawing Name: Z:\1016.01 – Wildberry Lodge\EIS Calculations.dwg Date Printed: Jan 30, 2015, 4:23pm

FIGURE 4

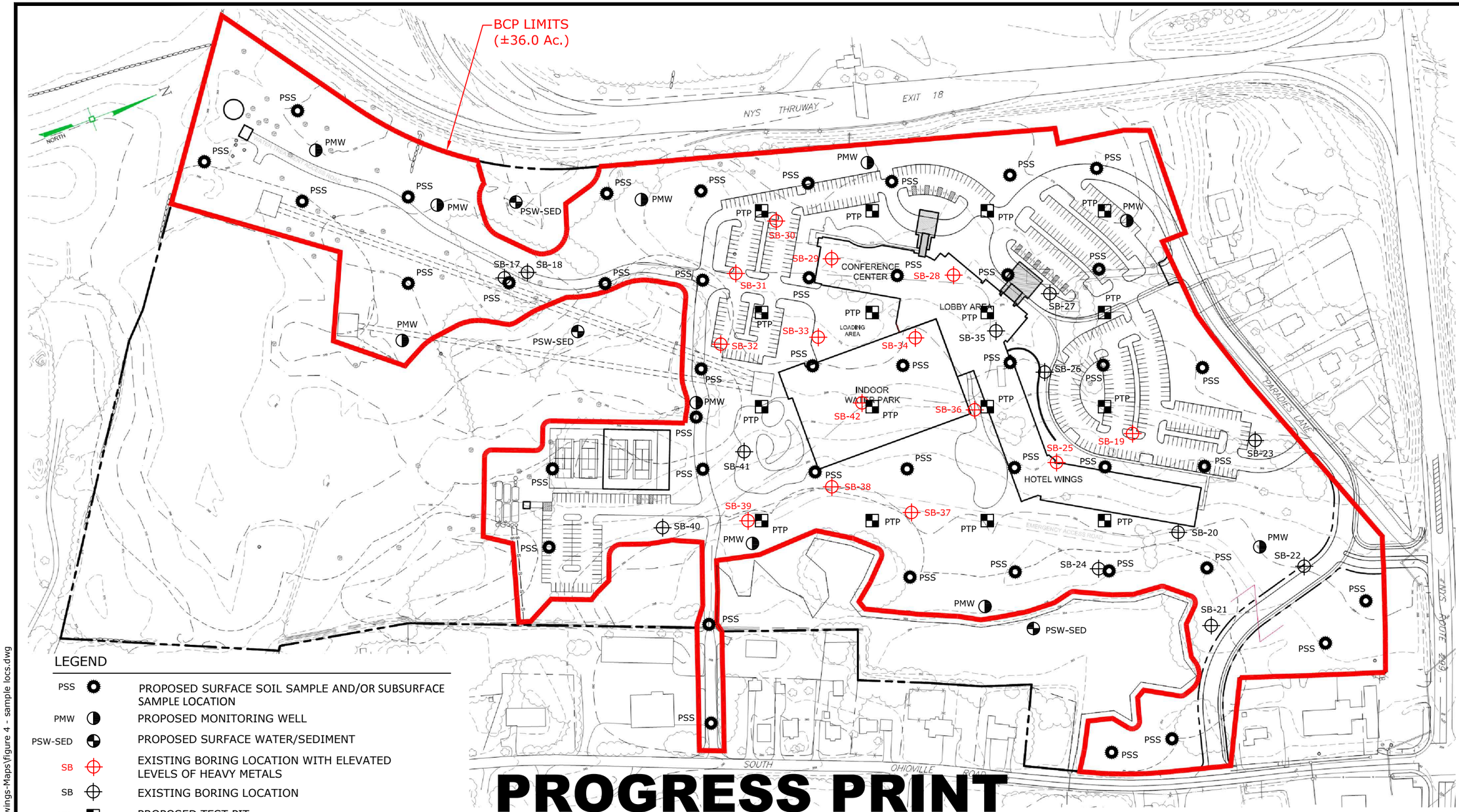
PROPOSED SAMPLING LOCATIONS PLAN

XREFS: NONE

PROJECT NUMBER: 15.5056

CAD DWG. FILE NAME: figure 4 - sample locs.dwg

CAD DWG. FILE NAME: K:\Projects\155056\Env\Drawings-Maps\figure 4 - sample locs.dwg



LEGEND

PSS	PROPOSED SURFACE SOIL SAMPLE AND/OR SUBSURFACE SAMPLE LOCATION
PMW	PROPOSED MONITORING WELL
PSW-SED	PROPOSED SURFACE WATER/SEDIMENT
SB	EXISTING BORING LOCATION WITH ELEVATED LEVELS OF HEAVY METALS
SB	EXISTING BORING LOCATION
PTP	PROPOSED TEST PIT

PROGRESS PRINT

MAP REFERENCE:

1. "BCP LIMITS SKETCH" WILDBERRY LODGE NYS ROUTE 299 & SOUTH OHIOVILLE ROAD" TOWN OF NEW PLATZ, ULSTER COUNTY, NEW YORK, PREPARED BY ENGINEERING & SURVEYING PROPERTIES, DATES FEBRUARY 24, 2015, DWG BCP-1.

DATE		REVISIONS RECORD/DESCRIPTION	DRAFTED	CHECK	APPR.
	1				
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9				

DESIGNED : J.MCIVER
DRAFTED : S.WUNSCH
CHECKED : J.MARX
PROJ. NO : 15.5056
SCALE : 1"=200'
DATE : SEPT. 29, 2015

FIGURE 4
PROPOSED SAMPLING LOCATIONS

WILDBERRY LODGE
NYS ROUTE 299 & SOUTH OHIOVILLE ROAD

TOWN OF NEW PALTZ — ULSTER COUNTY, NEW YORK

C.T. MALE ASSOCIATES
Engineering, Surveying, Architecture & Landscape Architecture, D.P.C.
50 CENTURY HILL DRIVE, LATHAM, NY 12110
518.786.7400 * FAX 518.786.7299

SHEET 1 OF 1

DWG. NO: 15-533

APPENDIX A

FIELD SAMPLING PLAN

APPENDIX B

QUALITY ASSURANCE PROJECT PLAN

APPENDIX C

SITE SPECIFIC HEALTH AND SAFETY PLAN

ATTACHMENT A

PREVIOUS INVESTIGATIONS

(on CDROM, in Pocket)